

Indian Institute of Technology, Bombay

CS101 PROJECT  
AUTUMN SEMESTER 2014  
LIBRARY MANAGEMENT SYSTEM  
PROJECT REPORT

Slot 6 Group 7

Chaitanya Prasad

Abhinav Sonkar

Gowtham Batchala

# Problem Statement

The aim is to create a self-sustained application which can manage databases of the books available in the library and also the members and librarians of the library. The application should be capable of maintaining a record of books issued by each member, and also processing requests such as reserving a book or requesting a new book into the library. The application should be as user-friendly as possible, and should be as comfortable to use for any user as is a GUI based application.

## Why we chose this topic

- An automated library system makes it much easier to maintain book records and databases.
- It minimises time taken in lines to get a book issued/returned.
- The process of requesting a book becomes much easier and efficient.

## Methodology

The application maintains multiple tables, the primary being table storing books, and one storing members of the library. There are also tables storing librarians, and the requested books by members.

The member can login to the system using his roll number and a password which he sets while registering for the library. After logging in he can search for books using appropriate queries such as title or author of the book. He can then issue the book given that the library still has at least one issue left of the book. He can also return his

issued books, reserve other books for himself, and also request books which aren't available in the library.

The librarian has his own employee number and a password to log in to his account. His work is to add new books to the database of the system, and also delete books which have been removed from the library. He is also supposed to view new book requests by users, and act accordingly.

A new user can register for the library membership using his roll number and set his password.

## Features

- The application is made very user friendly. It is designed so as to make the user can very easily slide through all kinds of functions he can perform.
- The large variety of functions gives the user a lot of freedom, and also reduces the workload on the manual labour.
- The application allows large amount of data storage in terms of books, members, and thus hard copies of this information is reduced/nullified.